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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,180	01/25/2002	Robert L. Irvine	396164	7575
7590	06/01/2005			
Robert L. Irvine 11918 Westgate Circle Overland Park, KS 66213				
EXAMINER				
CINTINS, IVARS C				
ART UNIT		PAPER NUMBER		
1724				

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,180	IRVINE, ROBERT L.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,10-12,14-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,10-12,14-18 and 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The disclosure is objected to because the relationship (i.e. continuation, division or continuation-in-part) between this application and parent application Serial No. 09/934,759 has not been indicated in paragraph 0001 of the specification, as required by 37 C.F.R. §

1.78(a)(2)(i). Appropriate correction is required.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The limitation that the “total reactivating gas makeup is about 5 percent of the gas entering the cool-down zone” (claim 15, lines 2-3) does not appear to be supported by the disclosure originally filed, and hence constitute **new matter**. It is noted that line 11 of the abstract discloses that “the reactivating gas may be reduced to below 5% of prior requirements,” but nowhere does the original disclosure support about 5% of gas entering the cool-down zone. If Applicant feels that the above noted limitation is supported by the original disclosure, then he should specifically point out, citing page and line, which portions of this disclosure provide such support.

It is noted that Applicant’s remarks indicate that claim 29 has been “canceled as unimportant” (see page 8, penultimate paragraph of the response filed February 28, 2005). However, since the listing of claims presents this claim with the status identifier “Currently Amended,” it has been treated as still pending.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4-7, 10-12, 14-18 and 20-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The claims contain numerous vague and indefinite expressions. For example, the term “significantly lower” (claim 1, lines 28 and 32) is indeterminate in scope, and hence indefinite, because it is not clear what would constitute a significant difference in impurity concentration and/or temperature. Also, the term “usually” (claim 1, line 41) is vague, and indefinite as to the limitation intended. The recitation of “a particle diameter range of about 1.5” (claim 2, line 3) is indefinite because 1.5 appears to be a single value, not a range. The terms “preferentially” (claim 16, line 3) and “such as” (claim 22, line 2) are also indefinite as to the limitations intended.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-7, 10-12, 14-18 and 20-29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Irvine (U.S. Patent No. 5,730,860). As pointed out in the previous Office action, the reference discloses a liquid purification process of the type recited, and further teaches utilizing adsorbent particles having the recited size (see col. 6, line 55) under conditions such that bed expansion is limited to 8% (see col. 12, line 13); and in view of the indefiniteness of the claims, this is all that appears to be required by claims 1, 2, 4-7, 10-12, 14-18 and 20-29.

Applicant's arguments filed February 28, 2005 have been noted and carefully considered, but are not deemed to be persuasive of patentability. Applicant argues that the claims of this application treat liquid feeds with impurities in general, including hydrocarbons, whereas US Patent 5,730,180 only treats hydrocarbons. It is pointed out, however, that since the claims are not limited to the treatment of liquids other than hydrocarbons, this argument is not deemed to be persuasive of patentability for these claims.

Applicant also argues that US Patent 5,730,180 does not suggest the "significant temperature difference stated in claim 1." Again, this argument has been noted and carefully considered, but is not deemed to be persuasive of patentability. As pointed out above, the term "significant" is indeterminate in scope. Since by Applicant's own admission, "cool-down of the hot desorbed adsorbent solids leaving the final adsorption zone" occurs in the system of US Patent 5,730,180 (see page 8, last paragraph of the above noted response), the temperature difference, whatever it may be, between this adsorbent in the various zones of the reference process can be considered "significant."

Applicant's response also enumerates many purported advantages over the prior art system. However, Applicant has provided no evidence, such as comparative data, to support such allegations and conclusions. Mere conclusory statements, unsupported by objective evidence, are entitled to little weight in determining patentability. Cf. *In re Greenfield*, 571 F.2d 1185, 1188, 197 USPQ 227, 229 (CCPA 1978).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

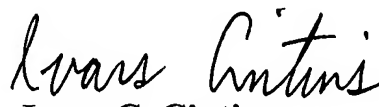
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
May 30, 2005